DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-016817 Address: 333 Burma Road **Date Inspected:** 17-Sep-2010

City: Oakland, CA 94607

OSM Arrival Time: 830 **Project Name:** SAS Superstructure **OSM Departure Time:** 1700 Prime Contractor: American Bridge/Fluor Enterprises, a JV Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Jobsite

CWI Name: See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: SAS OBG**

Summary of Items Observed:

On this date CALTRANS OSM Quality Assurance Inspector (QAI) Bert Madison was present at Yerba Buena Island in California between the times noted above for observations relative to the work being performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below.

- 1). OBG Field Welding of East Line Lifting Lug Rod Access Penetration Patch Welds
- 2). OBG Field Welding of East Line Personnel Access Hole Restoration
- 3). QC UT of East Line Lifting Lug Rod Access Penetration Patch Welds

1). OBG Field Welding of East Line Lifting Lug Rod Access Penetration Patch Welds

Exterior: PP25

The QAI periodically observed the fit-up and welding per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position to restore the Lifting Lug Rod Access Penetrations in the A deck at PP25. The QAI observed that AB/F approved welder Darcell Jackson (ID 9967) performed fit-up and welding at PP25 weld E4-1, E4-3 and E4-4. QC Inspector Tom Pasqualone was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1050A. The QAI also periodically observed QC Inspector Tom Pasqualone performing checks of the planar alignment at fit-up locations prior to the root pass welding. The QAI observed that the work appeared to be in general compliance with contract documents.

Interior: PP8.5 and PP9.5

The QAI periodically observed AB/F approved welder Jin Pei Wang (ID 7299) performing welding at PP9.5 weld E4-3 and AB/F approved welder Hua Qiang Huang (ID 2930) performing welding at PP8.5 welds E4-3 and E4-4 per the SMAW process in the 4G (overhead) position. QC Inspector Tony Sherwood was periodically present to

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monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1110B rev.1. The QAI also observe AB/F personnel performing back grinding at PP8.5 weld E4-1. The QAI observed that the work appeared to be in general compliance with contract documents.

2). OBG Field Welding of East Line Personnel Access Hole Restoration – (SMAW)

The OAI periodically observed AB/F approved welder Wai Kitlai (ID 2953) performing welding of fill passes per the SMAW process in the 1G (flat) position on the A face (exterior) of the A deck between PP10 & PP11 on the Crossbeam side of OBG 1E. The QAI also periodically observed AB/F approved welder Yao Xin Liang (ID 7238) performing welding of fill passes per the SMAW process in the 1G (flat) position on the A face (exterior) of the A deck between PP10 & PP11 on the Bike Path side of OBG 1E. QC Inspector Tom Pasqualone was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1030 rev.1. Work was completed from the exterior at these locations. The QA Inspectors observed that the work appeared to be in general compliance with contract documents.

3). QC UT of East Line Lifting Lug Rod Access Penetration Patch Welds

The QAI periodically observed QC Inspectors John Pagliero and Steve McConnel performing UT from the A Face of East Line Lifting Lug Rod Access Penetration Patch Welds. The QAI periodically observed that the QC Inspectors utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination of the patch welds. The QC technicians performed the required longitudinal wave testing utilizing a 1" diameter transducer for base metal soundness and performed the required shear wave testing during the testing for weld soundness utilizing a .63 x .75 rectangular transducer. The UT examination was completed from face A during the QA Inspectors shift at the following locations: PP9.5 E3 welds 2, 3 & 4, PP11 E3 welds 1, 2, 3 & 4. The QAI noted that the QC UT results marked on the steel indicated that PP9.5 E3 welds 2 and 4 and PP11 E3 welds 1 & 2 contained UT rejects and PP9.5 E3 weld 3 was accepted. PP11 E3 welds 3 & 4 were not completely evaluated during the QA inspectors shift. The work at this location appeared to be in general compliance with contract documents.





Summary of Conversations:

Conversations on this date with Quality Control Inspectors were general in nature and pertained to locations of welding and QC activities.

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammed Fatemi (916) 813 3677, who represents the Office of Structural Materials for your project.

Inspected By:	Madison,Bert	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer